

REMARKS/ARGUMENTS

Claims 1-3, 26, 28, and 30 are pending.

Claims 1-3, 25-26, 28 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yano (US 5,138,415) in view of Gross (US 5,316,964) and Patterson (US 4,972,247).

Claims 27 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yano (US 5,138,415) in view of Gross (US 5,316,964), Patterson (US 4,972,247), and Collins (US 5,262,754).

Claims 1-3, 25-26, 28 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Gross (US 5,316,964) and Patterson (US 4,972,247).

Claims 27 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Gross (US 5,316,964), Patterson (US 4,972,247), and Collins (US 5,262,754).

Claims 1 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Akiyama (US 5,994,189) in view of Gross and Patterson.

Claims 1 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mori et al. (US 5,101,244) in view of Gross and Patterson.

Without conceding the merits of the rejections, independent claim 1 has been amended to recite the passivation layer comprising “a polyimide layer disposed over an oxide layer.” Claim 1 as amended recites in part:

A power device, comprising:
a semiconductor substrate ...;
a first electrode terminal ...;
a second electrode terminal coupled ...;
an isolation diffusion region ...;
a peripheral junction region of second conductivity formed at least partly within the isolation diffusion region and formed proximate the first surface of the isolation diffusion region; and
a passivation layer provided over the upper surface of the substrate, the first surface of the isolation diffusion region, and the peripheral junction region, the passivation layer comprising a polyimide layer over an oxide layer;
... .

Collins was cited (O.A., page 6) for allegedly teaching “a polyimide layer over an oxide layer.” A review of Collins at column 2, lines 50-55 reveals a description of member 11, which is a layer of insulating material that may include polyimide. However, as can be seen in the cross sectional view of Fig. 8, member 11 is clearly sandwiched between two conductive sheets 62, 64 (col. 4, lines 16-20); conductive sheets 62, 64 are not an oxide layer. Fig. 8 does not show “a polyimide layer over an oxide layer.”

Likewise, the view shown in Fig. 4 illustrates a sheet 21 sandwiched between conductive plane 22 and electrodes 24, neither of which constitute an oxide layer. Fig. 4 does not show “a polyimide layer over an oxide layer.”

Since it was correctly noted that the other references do not teach “a polyimide layer over an oxide layer” and since Collins was relied on for allegedly teaching the examiner has not established a prima facie case of obviousness because, as explained above, Collins does not teach “a polyimide layer over an oxide layer.”

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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